

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018461**Date Inspected:** 01-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 12AE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress the buildup of Longitudinal Diaphragm LD3003A at the web to Floor Beam connection. The welder is identified as #047353 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-345-FCAW-2G (2F)-ESAB-repair for WR17894.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress the buildup of Longitudinal Diaphragm LD3004A at the web to Floor Beam connection. The welder is identified as #052763 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-345-FCAW-2G (2F)-ESAB-repair for WR17894.

This QA Inspector observed Base Metal Repair using the Shielded Metal Arc Welding (SMAW) process at locations of gouges in the beveled edge of the Bottom Plate at 12AE/12BE transverse CJP splice. The welder is

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identified as #040320 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-repair-1 for CWR2129.

Cross Beam 17

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated FB3057-053-060, Partial Height Diaphragm flange splice. The welder is identified as #037996 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G (2F)-repair-1.

Segment 11DW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP507-001-057, 058, Side Plate WT stiffener hold back weld. The welder is identified as #053486 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB.

Segment 11EW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP508-001-001, 002, Side Plate WT stiffener hold back weld. The welder is identified as #053486 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB.

Segment 11EE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated BP190-001-033, 034, Bottom Plate WT stiffener hold back weld. The welder is identified as #052763 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated BP082-001-035, 036, Bottom Plate WT stiffener hold back weld. The welder is identified as #047353 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB.

Segment 12AE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated BP3001-047-048, 034, Bottom Plate WT stiffener hold back weld. The welder is identified as #052763 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is

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designated BP3002-001-053, 054, Bottom Plate WT stiffener hold back weld. The welder is identified as #047353 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as Wang Li Yang and Shi Lei. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 11EE/12AE

This QA Inspector observed the back gouging of the root pass on the Side Plate to Bottom Plate hold back CJP splice, cross beam side.

Segment 12BE

This QA Inspector observed segment 12BW was place in the trial assembly east line up.

QA Verification

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC MT personnel. The following items were tested:

11DW/11EW

I-rib hold back fillet welds

DP681-001-013

DP681-001-014

DP682-001-007

DP682-001-008

EP122-001-009

EP122-001-010

EP123-001-005

EP123-001-006

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By: Hernandez,Dan

Quality Assurance Inspector

Reviewed By: Dsouza,Christopher

QA Reviewer